



Figure F-3. Effectiveness monitoring

*F-5. Type of Monitoring Program*

AR 200-1 and other laws and regulations help determine the types of monitoring program. There are five basic considerations for monitoring programs (Figure F-1):

(a) Legal requirements. Permits for some actions will require that a monitoring system be established, for example, dredge and fill permits from the Corps of Engineers. These will generally require both enforcement and effectiveness monitoring programs.

(b) Protected resources. These include Federal- or State-listed endangered or threatened species, important historic or archaeological sites (whether or not these are included on the National Register of Historic Places), wilderness areas, wild and scenic rivers, and other public or private protected resources. Private protected resources include areas such as Audubon Society Refuges, Nature Conservancy lands, or any other land that would be protected by law if it were under Government ownership, but is privately owned. If any of these resources are affected, an effectiveness and enforcement monitoring program must be undertaken in conjunction with the Federal, State, or local agency that manages the type of resource.

(c) Major environmental controversy. If a controversy remains regarding the effect of an action or the effectiveness of a mitigation, an enforcement and effectiveness monitoring program must be undertaken. Controversy includes not only scientific disagreement about the mitigation's effectiveness, but also public interest or debate.

(d) Mitigation outcome. The probability of the mitigation's success must be carefully considered. The proponent must know if the mitigation has been successful elsewhere. The validity of the outcome should be confirmed by expert opinion. However, the proponent should note that a certain technique, such as artificial seeding with the natural vegetation, that may have worked successfully in one area, may not work in another.

(e) Changed conditions. The final consideration is whether any condition, such as the environmental setting, have changed (for example, a change in local land use around the area, or a change in project activities, such as increased amount of acreage being used or an increased movement of troops). Such changes will require preparation of a supplemental impact evaluation and additional monitoring. If none of these conditions are met (that is, requirement by law, protected resources, no major controversy is involved, effectiveness of the mitigation is known, and the environmental or project conditions have not changed), then only an enforcement monitoring program is needed. Otherwise, both an enforcement and effectiveness monitoring program will be required.

*F-6. Enforcement Monitoring Program Development*

The development of an enforcement monitoring program is governed by who will actually perform the mitigation (Figure F-2). The following three different groups may actually perform the work: a contractor, a cooperating agency, or a lead agency (in-house). However, the lead agency is ultimately responsible for performing any mitigation activities.

(a) Contract performance. Several provisions must be made in work to be performed by contract. The lead agency must ensure that contract provisions include the performance of the mitigation activity and that penalty clauses are written into the contracts. It must provide for timely inspection of the mitigation measures and is responsible for enforcing all contract provisions.

(b) Cooperating agency performance. The lead agency must ensure that if a cooperating agency performs the work, it understands its role in the mitigation. The lead agency must determine and agree upon how the mitigation measures will be funded. It must also ensure that any necessary formal paperwork such as cooperating agreements are complete.

(c) Lead agency performance. If the lead agency performs the mitigation, the proponent has several responsibilities to—

(1) Ensure that needed tasks are performed.

(2) Provide appropriate funding in the project budget.

(3) Make arrangements for necessary manpower allocations.

(4) Make any necessary changes in the agency (installation) regulations (such as, environmental or range regulations).

(d) Results. In any case, whether the mitigation is performed by contract, a cooperating agency, or the lead agency, all results will be sent to the Public Affairs Office and the Environmental Office on post.

*F-7. Effectiveness Monitoring Program Development*

Effectiveness monitoring is the most difficult to establish (Figure F-3). The responsible agent, such as the Director of Training, should coordinate the monitoring with the Environmental Office.

(a) Determination of what is to be monitored. The first step in this type of monitoring program is to determine what must be monitored. This determination should be based on criteria discussed during the establishment of the system; for example, the legal requirements, protected resources, area of controversy, known effectiveness, or changed conditions. Initially, this can be a very broad statement, such as reduction of